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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/666,951	09/20/2000	Friedhelm Beckmann	1001-999	7347

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EXAMINER

KOSLOW, CAROL M

ART UNIT	PAPER NUMBER
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1755

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/666,951

Applicant(s)

BECKMANN, FRIEDHELM

Examiner

C. Melissa Koslow

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 September 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/26/02, 12/9/02, 5/17/04
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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This action is in response to applicant's amendment of 25 May 2005. In view of the fact a new Examiner is now examining this application, all previous rejections and objections are withdrawn. Applicant's arguments with respect to claims have been considered but are moot in view of the new grounds of rejection.

The drawings are objected to because In figure 1, the line from reference number 3 points to the bottom plate, not the cavity as indicated in the specification. In figure 1, the bottom plate is not labeled. The description of reference number 5 in the specification does not correspond to what is shown in figure 1. Figure 1 has the spacers as part of the coating 2, but the specification indicates the spacers to be a separate component. In figure 3, the line from reference number 6 does not point to the core and the material between the cross-hatched core is not identified or defined. Thus it is unknown if this material is the foamed material or the unfoamed activatable foamable material. In figures 4A-4D, the individual parts are not clearly identified. It is noted that the drawing symbol for each component should be consistent throughout the drawings.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the

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remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The disclosure is objected to because of the following informalities: It is unclear what articles applicant's consider as "hollow sections with internal reinforcement". This phrase reads on, for example, insulated pipes, storage containers, construction components for buildings, airplane body parts, boat hulls and automobile body parts. Since it is unclear what are these articles, the art to which these articles belong is unknown and therefore it is unclear what heat foamable materials are encompassed by "activatable material"; engineering polymers, elastomers, biodegradable polymers, cements, glasses or ceramics. The 37 CFR 1.132 declaration does not clarify this issue since it states that it is known in the automotive industry this phrase is known to be referring to heat activated structural foamable polymers, but as discussed above, the claimed article is not limited to articles in the automotive art. In the insulated pipe art, this phrase can refer to heat activated foamable cements. In addition, since it is unknown what are these articles, it cannot be determined what is the composition of reinforcing and/or energy-absorbing foam system or acoustic foams, since these foams can be composed of polymers, ceramics, cements or even metals. The purpose of these articles determines which of these materials are functional, i.e. cement acoustic foam would not be functional in automobile bodies. Applicant needs to clarify what is meant by "an outer plate", a single body or two plates bonded together, as shown by figures 1 and 2. The

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specification teaches enclosing the core in “an outer plate” which figures 1 and 2 indicate means one plate, since they shows encompassing the core in two plates. The phrase “foam-filling” in lines 8 and 9 on page 7 implies the cavities of filled with a foam from an outside source. It is suggested to replace “foam-filling” with “foaming” to more properly reflect what is taught in the rest of the specification. Appropriate correction is required.

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The specification does not clearly teach the step of passing the assembly through the drying oven dries the corrosion protection as well as initiate the foaming of the activatable foamable material. The statement in lines 11-18 on page 8 implicitly teaches the drying oven dries the corrosion protection as well as initiates the foaming of the activatable foamable material, but this claimed limitation should be explicitly disclosed. To overcome this objection, applicant simply needs to insert the limitation that the drying oven dries the corrosion protection as well as initiate the foaming of the activatable foamable material into the specification. There is no teaching in the specification that spacers are formed on the foamable material. Figure 1 and page 8, lines 2-4 teach the spacers are projections from the coating and are composed of the foamable material. To overcome this objection, applicant simply needs to insert the subject matter of claim 9 into the specification where the subject matter is rewritten so it is not indefinite as to its meaning.

Claim 2 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is

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required to cancel the claim, or amend the claim to place the claim in proper dependent form.

Step two of the process in claim 1 teaches enclosing the coated core with an outer plate to form a defined cavity inside the outer plate, which means the cavity is the area between the activatable foamable material coated core and the outer plate. Thus the claim limitation of claim 2 is implicitly taught in claim 1 and accordingly, claim 2 does not further limit claim 1.

Claims 15, 19 and 20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention.

There is no teaching in the originally filed specification of a substantially hollow core. Page 5, lines 14-18, figures 3 and 4A-4D and original claim 15 teach the core having the claimed compositions is a solid core having a hollow section. There is nothing in the originally filed disclosure indicating the core is substantially hollow. Thus this claim limitation is new matter. The specification teaches the core is formed of a solid material with a flexurally rigid hollow section. There is no teaching in the specification that the core is flexurally rigid or is a flexurally rigid hollow section. Thus these limitations are new matter. While figures 1-3 show an elliptical core placed substantially centrally in the assembly, these figures do not support the limitation in claim 19 that all cores are disposed substantially centrally in the assembly. The rest of the specification is

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silent as to the where the core is placed in the assembly. Thus this limitation is new matter.

Claims 1-6 and 8-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are indefinite as to what articles applicant's consider as "hollow sections with internal reinforcement". This phrase reads on, for example, insulated pipes, storage containers, construction components for buildings, airplane body parts, boat hulls, automobile body parts. Since it is unclear what are these articles, the art to which these articles belong is unknown and therefore it is unclear what heat foamable materials are encompassed by "activatable material"; engineering polymers, elastomers, biodegradable polymers, cements, glasses or ceramics. The 37 CFR 1.132 declaration does not clarify this issue since it states that it is known in the automotive industry this phrase is known to be referring to heat activated structural foamable polymers, but as discussed above, the claimed article is not limited to articles in the automotive art. In the insulated pipe art, this phrase can refer to heat activated foamable cements. In addition, since it is unknown what are these articles, it cannot be determined what is the composition of reinforcing and/or energy-absorbing foam system or acoustic foams, since these foams can be composed of polymers, ceramics, cements or even metals. The purpose of these articles determines which of these materials are functional, i.e. cement acoustic foam would not be functional in automobile bodies. The claim limitation of enclosing the core in "an outer plate" is indefinite since figures 1 and 2 shows encompassing the core in two plates. Applicant needs to clarify what is meant by the claimed "an outer plate", a single body

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or two plates bonded together, as shown by figures 1 and 2. It is unclear what is a core is formed of a hollow section. This phrase simply means the core is a cavity, which is counter to the teachings in the specification and to claims 4-6 which teach the core has a composition and thus is a body. Claim 8 is infinite as to its meaning since there is no temperature indicated in the coating step in claim 1. It is noted that page 8 teaches the coating step occurs at a temperature lower than the stoving temperature of the corrosion prevention layer. This is different than maintaining a temperature for coating the core. Claim 9 is indefinite since claim 1 teaches the cavity is formed by enclosing the core with the plate. Thus it is unclear how the spacers form the cavity. It is noted page 8 teaches and figure 1 shows spacers are used to adjust or maintain the size of the cavity around the core. Claim 11 recites the limitation "the outer material". There is insufficient antecedent basis for this limitation in the claim. It is unclear if the outer material in claims 12-14 refers to the composition of activatable foamable material or to the composition of the plate. Claims 15-18 are indefinite as to whether the foamable material has been foamed or not. Claims 15 and 17 indicate the article contains unfoamed material, but claim 16 indicates it contains foamed material.

For the purpose of formulating an art rejection, the Examiner is interpreting the phrase "hollow sections with internal reinforcement" to be limited to automobile body parts based on the statement on page 1, lines 14 and 23-24 and page 4, line 4, the fact the cited prior art is directed to automotive body parts, the 37 CFR 1.132 declaration indicates one of ordinary skill in the art is one having knowledge of automotive technology and the statement in applicant's representative's response of 12 November 2004 in lines 1-3 on page 14. For the purpose of formulating an art rejection, the

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Examiner is interpreting the phrase “activatable material” and “activatable foamable material” to be limited to heat activated foamable structural polymers, based on the 37 CFR declaration and the fact the Examiner is interpreting the phrase “hollow sections with internal reinforcement” to be limited to automobile body parts. Finally, the Examiner is interpreting “core material formed of a hollow section” as meaning “a core material with a hollow section” and “the core is a flexurally rigid hollow section” as meaning “the core with a flexurally rigid hollow section”. This interpretation is consistent with the teachings in the specification.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 19 is rejected under 35 U.S.C. 102(b) as being anticipated by U.S. patent 5,160,465.

This reference teaches forming a hollow car pillar with internal reinforcement comprising coating a stud, such is a flexurally rigid core, with activatable foamable polymeric composition; enclosing the core within an outer plate to form an assembly with a defined cavity; passing the assembly through an electrophoresis or corrosion treatment bath and passing the assembly to a drying oven to dry and cure the treatment and to cause the foamable material to foam which fills the cavity. Figure 1 shows the core is disposed substantially centrally in the assembly. The reference teaches the claimed process.

Claims 15, 16 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. patent 5,194,199.

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This reference teaches an assembly comprising an outer plate enclosing a foamed aluminum core, which is a substantially hollow core having cavities therein, coated with an foamed activatable foamed material, where the foam completely fills the space between the core and the outer plate and where the inside of the assembly has been treated with a corrosion protection agent before the foamable material is foamed. Both foams are energy-absorbing foams. The reference teaches the section.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 8, 9, 11, 13, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 5,194,199 in view of U.S. patent 5,160,465.

U.S. patent 5,194,199 teaches forming a structural part by coating a foamed aluminum core with an activatable foamable material, centrally placing the core in a outer plate that encloses the core to form an assembly having a cavity therein, immersion coating the assembly in an hot anticorrosion treatment bath to cause the foamable material to foam and completely fill the cavity as well as providing a anti-corrosion treatment to the interior of the assembly. The taught aluminum foam and foamable materials are both energy-absorbing foams and aluminum foams are also known as reinforcing foams. The core is coated at room temperature, which is below the stoving temperature of the anticorrosion treatment and figure 1 shows the use of spacers 8 and 9 to maintain the core in the center of the cavity. This patent does not teach a two part corrosion treatment, where the assembly is treated and then heated to cure the treatment

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and foam the foamable material. U.S. patent 5,160,465 teaches forming a structural part by coating a solid core with an activatable foamable material, centrally placing the core in a outer plate that encloses the core to form an assembly having a cavity therein, immersion coating the assembly in an anticorrosion treatment bath to anti-corrosion treatment to the interior of the assembly and drying the assembly in a drying oven to cause the foamable material to foam and completely fill the cavity as well drying the anti-corrosion treatment. It appears that the immersion coating the assembly in an anticorrosion treatment bath to anti-corrosion treatment to the interior of the assembly and drying the assembly in a drying oven to cause the foamable material to foam and completely fill the cavity as well drying the anti-corrosion treatment in U.S. patent 5,160,465 is functionally equivalent to the corrosion and foaming treatment in U.S. 5,194,199, absent any showing to the contrary. Therefore one of ordinary skill in the art would have found it obvious to replace the corrosion and foaming treatment in U.S. 5,194,199 with the functionally equivalent corrosion and foaming treatment in U.S. 5,160,465. The references suggest the claimed processes.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melissa Koslow whose telephone number is (571) 272-1371. The examiner can normally be reached on Monday-Friday from 8:00 AM to 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo, can be reached at (571) 272-1233.

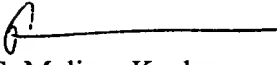
The fax number for all official communications is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you

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have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cmk
October 31, 2005


C. Melissa Koslow
Primary Examiner
Tech. Center 1700